

ALTON OCHSNER MEDICAL FOUNDATION

3503 PRYTANIA STREET

NEW ORLEANS

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Dear Dr. Lederberg:

A few days ago I discussed with Dr. F. F. Nord in New York an apparently hereditary problem in dogs and he suggested that I write to you and ask your expert advice.

This is the situation: German Shepherd Dogs show in an alarmingly increasing number "hip dysplasia", commonly called "congenital subluxation". This defect is seen by X-ray (usually at 4-5 months of age) to be the result of a shallow acetabulum, which leaves the head of the femur without a suitable socket. This leads to lameness and painful arthritic developments when the head of the femur rubs against the pelvic bone, cutting a groove and being itself gradually ground off and flattened as a consequence of motion.

This defect is believed to be associated with a "complex recessive gene". It occurs in varying degrees of severity in one or more puppies in a litter from parents who seem to be free of this malformation. I myself had to have an otherwise beautiful 8 months old dog put to sleep a short while ago when the diagnosis was established and this kind of thing is, of course, emotionally upsetting, since the owner usually has become quite attached to the dog by the time the defect becomes obvious.

For the breeders of dogs and for those wanting to buy puppies, it would, of course, be very desirable to know, whether the likelihood of the occurrence of subluxation in a litter could be predicted from the pedigrees, and whether recommendations could be made to avoid breeding certain individuals, in order to avoid this congenital malformation.

I would be very much interested to know what your feeling is concerning this problem and how you would suggest to attack it scientifically. It would be possible to obtain a number of 4-generation pedigrees of afflicted dogs. The specific question is, whether you believe it to be worthwhile to examine such pedigrees for common ancestors and inbreeding and to compare such pedigrees with those of animals of apparently sound phenotype? Or are there other approaches you feel should be undertaken? Needless to say that I would be glad to collect a number of pedigrees for examination, should you be interested in having a closer look at this situation.

I would be very grateful for any help or suggestion you can give me.

Sincerely yours,

Otto Schales

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